Slandering Darwin (and Science, too)

 There are so many false and misleading statements in this "Special Introduction" that a short pamphlet cannot correct them all. But one particularly outrageous claim is that Darwin's evolutionary theories have been the source of some of the 20th century's greatest crimes, including the Nazi Holocaust slavery and racism.



• In reality, Darwin's idea about

race were remarkably progressive for the 19th century, and he certainly was no friend of slavery. Rather, slavery in pre-Revolutionary (and pre-Darwinian) America was often justified in Biblical terms. So, for that matter, were the horrendous acts of the Nazis, who used as a slogan "Gott mit uns," meaning *God is with us.* Implying that evolutionary science was to blame for these dark episodes of human history flies in the face of historical fact. It just ain't so.

The God Problem

- The final portion of their Preface reveals that should have been obvious all along

 that their real reasons for objecting to evolution aren't scientific. They are religious. But here, too, they distort reality. The core of their argument is that evolution requires an atheistic materialism that rejects and even demonizes religion. To be sure, many scientists, including many evolutionary biologists are not religious. But many are, including individuals like molecular biologist Francis Collins, geneticist Francisco Ayala, and the late Theodosius Dobzhansky, a Christian who famously wrote that "Nothing in Biology Makes Sense Except in the Light of Evolution."
- Once again, they've got it wrong. Look at books like "The Language of God" (by Collins), "God after Darwin" (by theologian John Haught), "Thank God for Evolution" (by Michael Dowd), or my own book, "Finding Darwin's God." All express the view that faith can be consistent with evolution. This "Preface" argues for a narrow viewpoint that requires a rejection both of reason and mainstream science, something that no thinking person should be willing to do in this day and age.



Go on-line for more information (from the National Center for Science Education) at: dontdissdarwin.com

Fact-Checking Ray Comfort's "Special Introduction" to The Origin

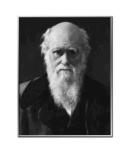
Kirk Gameron

A Great Book, Spoiled

150th Anniversary Edition

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Origin / Species



Charles Darwin Special Introduction by Ray Comfort

Inside: a few examples of how they've distorted the book & misrepresented the evidence for evolution. Ray Comfort & Kirk Cameron have written a "Preface" to *The Origin of Species.*

Bay Gomfort



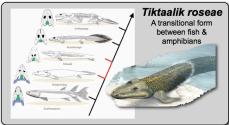
This brief response to the Cameron/Comfort Special Introduction was written by Kenneth R. Miller, Professor of Biology, Brown University

Evolution & Chance

- One of their first misrepresentations is the implication that evolution claims the DNA in our genomes came together "by sheer chance" [p. 9]. But evolution isn't mere chance
 — it is driven by non-random natural selection.
- Incredibly, in support of the view that DNA was "designed," they cite molecular biologist Francis Collins [p. 11]. In fact, Dr. Collins is a strong critic of "intelligent design," and has written eloquently on the signs of evolution in the human genome, something that Comfort & Cameron conceal from their readers.
- They ridicule our 96% genetic similarity to chimpanzees, noting that we also share 50% of our genes with bananas. What this actually shows, as they should know, is that we share common ancestry with both species, and that molecular studies confirm the evolutionary relationships of these and other species in great detail.

Transitional Forms

- The authors of this Preface argue repeatedly that there are no "transitional forms" in the fossil record [pp. 13-20]. Such forms, as they note, would document the evolutionary process, but they just aren't there or so they claim. This assertion, no matter how stridently made, is simply <u>false</u>. The fossil record is, in fact, loaded with transitional forms, and more are discovered every year.
- One spectacular example: *Tiktaalik*, a beautiful transitional fossil discovered in 2006 by Neil Shubin and Ted Daeschler. This fossil bridges the supposed "gap" between fish and tetrapods (early land-based vertebrates), and is a true transitional form in every respect.



- There are striking transitional forms documenting the evolution of the first mammals, the earliest cetaceans (whales and dolphins), the modern elephant, and scores of other organisms. Comfort & Cameron try to wave these away by citing a fossil hoax perpetrated on *National Geographic* magazine. But they neglect to mention that the hoax was quickly discovered by evolutionary scientists working on authentic feathered dinosaurs (real transitional forms) who recognized the fraud and exposed it.
- Their claim that *Pakicetus* has been debunked as a whale ancestor [p. 15] is false. In reality, *Pakicetus* is one of a series of superb intermediate forms that demonstrate the evolutionary origins of modern whales a fossil sequence described in detail by science writer Carl Zimmer in his 1999 book "At the Water's Edge."

Mutations

- Mutations provide much of the variation that natural selection acts upon, but according to Cameron & Comfort, scientists have "yet to find even a single mutation that *increases* genetic information" [p. 22]. This claim is nonsense. New genes arise by gene duplication and diversification, a process that often produces spectacular gains in genetic information, including the production of new biochemical capabilities.
- For example, mutations have given strains of bacteria the new information needed to digest man-made compounds like nylon. They have allowed fish to respond to climate change by producing antifreeze proteins, and they have left unmistakeable traces of our own evolutionary ancestry in genes that code for proteins like the hemoglobin that carries oxygen in our bloodstream. The Preface's claim to the contrary is simply wrong.

Which Came Flrst?

Cameron & Comfort seem to think they have a slam-dunk argument in their description of the heart and the bloodstream. They ask their readers "Which do you think came first — the blood or the heart — and why?" [p. 27]. Obviously, they think the question is impossible to answer. Unfortunately for them, comparative biology provides an easy answer. Blood, an extracellular fluid carrying oxygen and nutrients, is found in organisms that lack closed circulatory systems, such as insects and earthworms. In small animals, simple diffusion is enough. But in larger animals, that fluid moves into a hollow muscular tube which contracts to help it circulate. In a worm or insect, the fluid circulates through tissues without the need for blood vessels. Only in larger, more active animals (vertebrates) is there a need for a system of blood vessels to maintain pressure and circulation. Once again, they've misrepresented evolution by implying that this easy question is some sort of a scientific problem. It isn't.

The Eye - Again!

 Creationists love to pretend that evolution states that complex organs like the eye came about by accident [pp. 28-30]. Nonsense. The eye evolved in stages, just like everything else, and the living world shows us that those intermediate stages would have worked just fine. At right are images of six examples of simpler, fully-functional eyes in

other animals, showing that the vertebrate eye did not have to appear "fully-formed" as they claim. In fact, modern genetic evidence does support the evolution of the vertebrate eye from a common ancestor, just as Darwin suggested.